

REMARKS

Reconsideration of this application is respectfully requested in view of the foregoing amendment and the following remarks.

Claims 1-17 were pending in this application. Claim 9 has been cancelled, claim 18 has been added and claims 1, 8, 10, 12, and 15-17 have been amended. Accordingly, claims 1-8 and 10-18 will be pending herein upon entry of this Amendment. Support for the amendment to each of the claims and new claim 18 can be found, for example, in originally presented claims 9 and 10 of the present application. For the reasons stated below, Applicants respectfully submit that all claims pending in this application are in condition for allowance.

In the Office Action mailed February 3, 2005, claims 12 and 13 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite; claims 1, 2, and 8 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 5,243,298 to Runner; claims 3-6 and 9-15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Runner in view of U.S. Patent 5,446,369 to Bryne et al.; claims 7 and 16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Runner in view of Bryne et al, and further in view of U.S. Patent 6,623,616 to Malver et al; and claim 17 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Runner in view of U.S. Patent 5,196,075 to Jansen et al. To the extent these rejections might still be applied to claims presently pending in this application, they are respectfully traversed.

Claim 10 has been amended to change the dependency from cancelled claim 9 to amended claim 8. Claims 15-17 have been amended to correct the preamble to properly recite "system."

Regarding the rejection of claims 12 and 13 under 35 U.S.C. § 112, second paragraph, claim 12 has been amended to positively recite "a delay of maintenance for the piece of equipment." Therefore, Applicants respectfully request that the rejection of claims 12 and 13 be reconsidered and withdrawn.

Regarding the rejection of claims 1-8 and 10-17 over Runner alone, or in combination with one or more of Bryne et al, Malver et al, and Jansen et al, Applicants provide the following comments.

Claim 1, as amended, is directed to a method for scheduling maintenance on a piece of equipment. The method includes placing a metallic element having a test portion and a reference portion in an environment in which the piece of equipment is located, determining the amount of corrosion experienced by the metallic element by measuring the resistance of the test portion and the reference portion, and correlating the amount of corrosion with a maintenance schedule for the piece of equipment. Similarly, claim 8, as amended, is directed to a system for scheduling maintenance on equipment. The system includes a metallic element having a test portion and a reference portion to be placed in an environment in which a piece of equipment is located, a measuring and data storing device configured to measure the resistance of the test portion and the reference portion, and a computer configured to determine the amount of corrosion experienced by the metallic element based on the resistances measured by the measuring and data storing device and to correlate the amount of corrosion with a maintenance schedule for the piece of equipment.

Runner, as noted by the Examiner at page 4 of the February 3, 2005 office action, fails to teach a test portion and a reference portion. The Examiner has asserted that Bryne et al. discloses such an arrangement and that it would have been obvious to one of ordinary skill in the art to modify the anode wire of Runner with the sensor of Bryne et al.

In order to establish a *prima facie* case of obviousness, three basic criteria must be satisfied. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify a reference or to combine references. Second, there must be a reasonable expectation of success. Third, the prior art reference (or references when combined) must teach or suggest all the claim elements. See M.P.E.P. § 2143. Moreover, the requisite teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Applicants' disclosure. See *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). See M.P.E.P. § 706.02(j).

While the Examiner does allege what would be obvious to one of ordinary skill in the art "[b]ased upon the combination of Runner and Bryne et al.," this does not provide the motivation to combine the references in the first place as is required for the Examiner to make a *prima facie* case of obviousness.

Indeed, there is no motivation to combine Runner and Bryne et al, absent Applicants' disclosure. Specifically, Runner, as the Examiner has noted, discloses an anode wire that "corrodes preferentially with respect to the structure being tested" and "[i]f moisture intrusion occurs, anode wire 10 will begin to corrode before core 14, which will remain undamaged until

all the anode material has been consumed in the electrochemical process.” See Office Action, pp. 2-3. Therefore, the material selection for Runner is critical in that it is designed to corrode completely away before any corrosion occurs on the core 14 (*i.e.*, the structure being monitored).

Bryne et al. specifically discloses that the test probe includes a coupon made of the same material as the structural material to be monitored. See Col. 3, lines 33-35. If one were to modify Runner as taught by Bryne et al., Runner's stated purpose of having the anode be entirely consumed prior to any corrosive damage occurring on the monitored material would be defeated. Therefore, one of ordinary skill in the art would not look to Bryne et al. as a teaching to modify Runner to include both a test portion and a reference portion because Bryne et al. requires that the test material be the same as the monitored material.

For at least the foregoing reasons, independent claims 1 and 8 are allowable over the cited references. Claims 2-7 and 10-18 depend from either claim 1 or 8 and are allowable for at least the same reasons as claims 1 and 8 are allowable, as well as for their independently recited subject matter.

Further, the Office Action contains numerous characterizations of the invention, the claims, and the related art, with which Applicants do not necessarily agree. Unless expressly noted otherwise, Applicants decline to subscribe to any statement or characterization in the Office Action.

In view of the foregoing, all of the claims in this case are believed to be in condition for allowance. Should the Examiner have any questions or determine that any further action is

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desirable to place this application in even better condition for issue, the Examiner is encouraged to telephone Applicants' undersigned representative at the number listed below.

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Respectfully submitted,

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